

REMARKS

The Office Action dated July 24, 2006, has been received and carefully considered. In this response, claims 1, 49, 82, 102, 108, 124, 127, 154, 177 and 190 have been amended. Entry of the amendments to claims 1, 49, 82, 102, 108, 124, 127, 154, 177 and 190, is respectfully requested. Reconsideration of the outstanding rejections in the present application is also respectfully requested based on the following remarks.

Applicants note with appreciation the indication on page 24 of the Office Action that claims 121-123 are allowed. Likewise, Applicants note with equal appreciation the indication on page 25 of the Office Action that claims 16, 79 and 181-183 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants have opted to defer rewriting the above-identified claims in independent form pending reconsideration of the amendments and arguments presented below.

I. THE OBVIOUSNESS REJECTION OF CLAIMS 1-15, 17-30, 32-35, 37-78, 80-120, 124-180 AND 184-197

On pages 3-25 of the Office Action, claims 1-15, 17-30, 32-35, 37-78, 80-120, 124-180 and 184-197 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Goforth (U.S. Patent No. 5,419,877) in view of in view of Vicard (U.S. Patent No. 6,171,366); Eng (U.S. Patent No. 3,643,623) in view of Vicard;

Goforth in view of Vicard and further in view of Wojtowicz (U.S. Patent No. 6,322,613); Goforth in view of Vicard and further in view of Chang (U.S. Patent No. 6,451,094); or Eng in view of Vicard further in view of Chang. These rejections are hereby respectfully traversed.

As stated in MPEP § 2143, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Although Applicant does not agree with the pending rejections, Applicant has nonetheless amended the claims to clarify the claimed systems and methods and better distinguish the cited references. Each of independent claims 1, 49, 82, 102, 108, 124, 127, 154, 177 and 190 has been amended to recite that "the acoustic field is modulated according to different frequency and amplitude modulation ranges, and wherein said

modulation is based on: (1) a time harmonic acoustic displacement of a fluid stream, (2) a time harmonic displacement of an agent particle in response to the acoustic field and an associated viscous drag effect, (3) a relative displacement amplitude of the agent particle determined by subtracting the displacement of the fluid stream, or (4) a relative displacement over a plurality of frequencies to produce a curve such that the curve includes a global maximum wherein the global maximum is the sound to increase the acoustical simulation of vapor diffusion."

Applicant respectfully submits that none of the cited references teach or suggest any feature or functionality wherein the acoustic field that is modulated based on any of the above particulars.

Accordingly, Applicant respectfully submits that independent claims 1, 49, 82, 102, 108, 124, 127, 154, 177 and 190, as amended, are allowable over the cited references.

Claims 2-48, 50-81, 83-101, 103-107, 109-120, 125-126, 128-153, 155-176, and 178-189 are dependent upon independent claim 1, 49, 82, 102, 108, 124, 127, 154, 177 or 190. Thus, since independent claim 1, 49, 82, 102, 108, 124, 127, 154, 177 or 190 should be allowable as discussed above, claims 2-48, 50-81, 83-101, 103-107, 109-120, 125-126, 128-153, 155-176, and 178-189 should also be allowable at least by virtue of their dependency on independent claim 1, 49, 82, 102, 108, 124, 127, 154, 177 or

190. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination. For example, claim 2 recites wherein the acoustic generator of claim 1 is further defined as an array of sound sources mounted along the duct to produce a plurality of acoustic fields in the fluid passageway of the duct. Applicant respectfully submits that none of the cited references - alone or in combination - teach or suggest the apparatus of claim 1 wherein the acoustic generator is further defined as an array of sound sources mounted along the duct to produce a plurality of acoustic fields in the fluid passageway of the duct.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 1-15, 17-30, 32-35, 37-78, 80-120, 124-180 and 184-197 be withdrawn.

## II. CONCLUSION

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number, in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0206, and please credit any excess fees to the same deposit account.

Respectfully submitted,

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